North American Journal of Fisheries Management 6:294-295, 1986

Creel Surveys from a Kayak on the Henry's Fork of the Snake River, Idaho[1]

Robert L. Rohrer

Idaho Department of Fish and Game
109 West 44th Street
Boise, Idaho 83714, USA

Abstract.- Limited access and rough terrain along the Henry's Fork of the Snake River in Idaho precludes the usual creel census techniques. Accurate angler counts and interviews could be obtained, however, by use of a kayak on the river. This method had several advantages: all anglers could be counted from the river without being disturbed unduly; the kayak's speed and stability are greater than a canoe's, and its mobility allowed anglers to be interviewed on both banks; and the cost of such censuses are relatively low. An important side benefit was better compliance of anglers with fishing regulations resulting from the presence of census personnel on the river.

Surveying anglers is an important and fundamental task for fishery managers and research biologists. Malvestuto (1983), among others, outlined the techniques for sampling a recreational fishery, the two basic components of such surveys being counts to estimate fishing pressure and interviews of anglers.

We conducted a creel survey of the recreational fisheries of a 16.6-km section of the Henry's Fork of the Snake River (Island Park Dam tailwaters to Osborne Bridge) during the 1981 and 1982 fishing seasons (Rohrer 1983, 1984). Special regulations were in effect in this reach. A stratified random creel survey was used to estimate angler effort and harvest in three sections within the study area. The Henry's Fork in this area was limited access and anglers must park their vehicles at designated areas and walk in to the river.

In planning the project, we were faced with the problem of how to obtain accurate angler counts to estimate angler effort in a practical and affordable manner. Due to the limited access and rough terrain, anglers could not be counted accurately by a census clerk in a vehicle. Motorboat counts were not practical due to the nature of the fishery and terrain. An aerial survey for angler counts was considered too expensive to be desirable; 16 counts a month would cost an additional $1,500 for aircraft rental. Therefore, angler counts and most interviews were made by a single boater in a kayak. For safety reasons, whitewater creel surveys or studies in remote regions should be done by a team of two or more boaters and the boaters should always wear a helmet and life jacket. Angler counts could be made in less than 30 min for each section, yielding accurate and nearly instantaneous counts.

A creel survey by kayak was considered to be advantageous in this section of the river for several reasons: (1) all anglers (boat and bank) could be counted from the river; (2) it was a relatively inexpensive method requiring only the initial capital outlay for equipment (about $500); (3) it was an acceptable survey method to the angler in that fisherman were not disturbed as they fly-fished quiet stretches of water; (4) the kayak was considered superior to a canoe under the circumstances because it was faster and more stable; (5) the kayak could be used for counts and interviews (both components of the creel survey) and was mobile,

[1] Funds for this project were provided by the Federal Aid to Fish Restoration Act, Project F-73-R-4.

allowing access to anglers on both sides of the river; and (6) the census also provided to be an effective enforcement tool.

Angler compliance with fishing regulations is a necessary element of management (Paragamian 1984). Special regulations had recently (1978) been implemented in a reach of the study section, and we discovered a number of anglers violating length limits or terminal gear requirements during the first year of our study. Compliance was better in the second year, and we believe the high number of angler contacts made by kayaking provided the key to angler awareness of the restrictions. The kayak provided to be a valuable tool for our creel survey of the Henry's Fork of the Snake River, and biologists might want to consider this technique when faced with similar sampling needs.

Acknowledgements.-Jerry Mallet and Mel Reingold aided in the planning of this project. Stacy Gebhards trained the author in kayaking techniques and reviewed the manuscript. Dave Ortmann gave editorial help. Kirt Greenhalgh and Scott Peck collected survey data.

References

Malvestuto, S. P. 1983. Sampling the recreational fishery. Pages 397-419 *in* L. A. Nielsen and D. L Johnson, editors. Fisheries techniques. American Fisheries Society, Bethesda, Maryland.

Paragamian, V. L. 1984. Angler compliance with a 12.0-inch minimum length limit for smallmouth bass in Iowa streams. North American Journal of Fisheries Management. 4:228-229.

Rohrer, R. L. 1983. Henry's Fork fisheries investigations. Idaho Department of Fish and Game. Federal Aid in Fish Restoration. Job Performance Report, Project F-73-R-4, Boise.

Rohrer, R. L. 1984. Henry's Fork fisheries investigations. Idaho Department of Fish and Game, Federal Aid in Fish Restoration, Job Performance Report, Project F-73-R-5, Boise.